

COMPARISON OF THE 406 MHz AND 121.5 MHz DISTRESS BEACONS

The following table compares 406 MHz and 121.5 MHz beacons in these critical areas:

406 MHz Beacons

121.5 MHz Beacons

Coverage:

- o Global

- o Ground station dependent; ground stations have an effective radius of about 1800 nm (2300 km). Both ground station and beacon must be in satellite footprint. Current coverage is about one-third of the world.

Reliability-- False Alerts:

- o All alerts come from beacons. Satellite beacon transmissions are digital, coded signals. Satellites process only encoded data, other signals are rejected.
- o About 1 in 10 alerts are actual distress.

- o Only about 1 in 5 alerts come from beacons. Satellites cannot discern beacon signals from many non-beacon sources. Beacons transmit anonymously.

- o Beacon-unique coding/registration allow rapid incident corroboration. Registration mandatory 9/13/94. 90% beacons are registered. About 70% of false alerts are resolved by a phone or radio call to registration POCs prior to launching SAR assets.

- o Fewer than 2 in 1000 alerts and 2 in 100 composite alerts are actual distress.

- o Since 121.5 MHz beacons transmit anonymously, the only way to ascertain the situation is to dispatch resources to investigate -- a costly disadvantage.

Alerting:

- o First alert confidence sufficient to warrant launch of SAR assets. Earlier launches put assets on scene earlier--Average 2.5 hrs saved in maritime, 5 hrs in inland.

- o High false alert rate makes first-alert launch unfeasible. Absent independent distress corroboration, RCCs must wait for additional alert information.

- o Average initial detection/alerting by orbiting satellites is about 45 minutes--worst case 60 minutes.

- o Same as 406 MHz.

- o Average subsequent satellite passes every 60 minutes.

- o Same as 406 MHz.

- o Vsl/acft ID, point of contact information provided with alerts allows rapid corroboration or stand-down.

- o Alerts are anonymous. 121.5 MHz analog technology not capable of transmitting data.

- o Allows false alert follow-up to continuously improve system integrity/reliability.

- o No capability.

- o Near instantaneous detection by geostationary satellites. System provides world-wide coverage.

- o No capability.

Position Information:

- o 1-3 nm (2-5 km) accuracy on average. Position calculated by doppler shift analysis.

- o 12-16 nm (15-20 km) accuracy on average. Position calculated by doppler shift analysis.

- o 100 yard accuracy with GPS-equipped beacon. GPS position processed with initial alert. System infrastructure now available.

- o No capability.

Locating the Target:

- o Superior alert (non-GPS) position accuracy limits initial search area to about 12.5 sq. nm (20 sq. km).

- o Initial position uncertainty result in 450 sq. nm (700 sq. km) search area on average.

- o GPS-equipped beacons reduce search area to a negligible area.

- o No GPS capability.

- o 121.5 MHz homing signal facilitates target location by radio detection finder equipped search units.

- o Same as 406 MHz.

Power Output:

- o 5.0 Watts

- o 0.1 Watt

Cost:

- o Average cost is \$750.00 - \$1200.00 (EPIRB)
- o Average cost is \$1800.00 (GPS-equipped EPIRB)
- o Average cost is \$2200.00 - \$3500.00 (ELT)

- o Average cost is \$200.00 - \$500.00 (EPIRB)
- o Average cost is \$600.00 - \$1500.00 (ELT)

FUNCTIONS OF BOARD OF GOVERNORS

- 1. To assist the Civil Air Patrol in the fulfillment of its objects and purposes as set forth in 36 U.S.C. 202 by:**
- 2. Establishing standards and policy for operations and finances, including safety and inspector general programs;**
- 3. Establishing annual national budget and seeking federal and other funding therefor;**
- 4. Directing expenditure of federal appropriated funds in accordance with the national budget and applicable law; and**
- 5. Directing government, customer and public relations programs**

FUNCTIONS OF THE NATIONAL BOARD

To direct the volunteer membership in accomplishing the objects and purposes set forth in 36 U.S.C. 202, and in accordance with policies established by the Board of Governors:

- 1. Advises the Board of Governors in matters of operational concern;**
- 2. Elects National Commander and National Vice Commander;**
- 3. Ratifies appointments of National Chief of Staff, National Legal Officer, National Finance Officer and National Controller;**
- 4. Establishes policies for recruitment, retention and training in accordance with the Board of Governors policy guidelines; and**
- 5. Establishes standards and policy for awards, decorations and recognition programs for volunteer membership.**

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DRAFT #22

Chapter 909---CIVIL AIR PATROL

(AS DRAFTED BY AIR FORCE PERSONNEL)

(Deleted text from the existing statute is ~~struck through~~)

(New text from the existing statute is underlined)

§ 9441. Status: support by Air Force; employment

(a) STATUS AND UTILIZATION. The Civil Air Patrol is an organization chartered by Congress as a nonprofit corporation. The purpose of the Civil Air Patrol is set forth in section 40302 of title 36. The Civil Air Patrol is a volunteer civilian auxiliary of the Air Force. The Secretary of the Air Force may use the services of the Civil Air Patrol in fulfilling the non-combat programs and missions of the Department of the Air Force. The Secretary of the Air Force may, under regulations prescribed by him, regulate the activities of the Civil Air Patrol when acting as the volunteer civilian auxiliary of the Air Force. When the services of the Civil Air Patrol are used by any branch of the Federal government, the Civil Air Patrol will be employed as the volunteer civilian auxiliary of the Air Force. The Civil Air Patrol is not a federal agency or instrumentality for any purpose other than civil liability protection as provided in subsection (e) of this section.

(b) SUPPORT FOR THE CIVIL AIR PATROL AS A NONPROFIT ORGANIZATION To assist the Civil Air Patrol in the fulfillment of its objectives as set forth in section 40302 title 36.

(1) The Civil Air Patrol may utilize assets including, but not limited to, aircraft, motor vehicles, computers, and communications equipment, provided by the Federal government or that were purchased with Federal appropriated funds, including reimbursement, to respond to requests from state or local governments for assistance in disaster response or other emergency or non-emergency missions or activities. Such use is authorized whether or not the state or local governments provide reimbursement for this assistance, or provide reimbursement at a rate less than private companies charge for equivalent services; and

(2) The Secretary of the Air Force may provide funds for the Civil Air Patrol for the cost of insurance for civil liability protection associated with programs and missions not conducted as an instrumentality of the United States as provided for in subsection (e).

(c) SUPPORT FOR THE CIVIL AIR PATROL AS THE AUXILIARY OF THE AIR FORCE. To assist the Civil Air Patrol in the fulfillment of its objectives as set forth in section 2 of the Act of July 1, 1946 (36 U.S.C. 202) The Secretary of the Air Force may furnish

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resources as he considers to be needed by the Civil Air Patrol under regulations prescribed by him with the approval of the Secretary of Defense to enable the Civil Air Patrol, as the auxiliary of the Air Force, to fulfill its role of supporting Air Force programs and missions. The Secretary of the Air Force may—

- (1) give, lend, or sell to the Civil Air Patrol without regard to the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 471 et seq.)--
 - (A) major items of equipment, including, but not limited to, aircraft, motor vehicles, computers and communications equipment; and
 - (B) necessary related supplies and training aids;that are excess to the military departments; and
- (2) permit the use, with or without charge, of such services and facilities of the Air Force ~~as he considers to be needed by the Civil Air Patrol to carry out its missions;~~
- (3) ~~furnish such quantities of fuel and lubricants or provide funds for supplies, including but not limited to, fuel and lubricants and other items required for vehicle and aircraft operations including unit capability testing missions and training missions;~~
- (4) establish, maintain and supply liaison offices of the Air Force at the National, Regional, State, or ~~and at not more than eight regional headquarters~~ Territorial headquarters of the Civil Air Patrol;
- (5) detail or assign any member of the Air Force or any officer, ~~or~~ employee or contractor of the Department of the Air Force to any liaison office at the National, Regional, State, ~~or~~ or Territorial headquarters of the Civil Air Patrol;
- (6) detail any member of the Air Force or any officer, ~~or~~ employee or contractor of the Department of the Air Force to any unit or installation of the Civil Air Patrol to assist in the training programs of the Civil Air Patrol;
- (7) ~~in time of war, or of national emergency declared after May 27, 1954, by Congress or the President,~~ authorize the payment of travel expenses and allowances in accordance with regulations prescribed by the Secretary of the Air Force at rates not to exceed those paid to government employees under subchapter I of chapter 57 of title 5, to members of the Civil Air Patrol while carrying out any programs or missions specifically assigned by the Air Force;

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(8) provide funds for the ~~n~~National headquarters of the Civil Air Patrol, including, but not limited to, funds for the payment of staff compensation and benefits, administrative expenses, travel, per diem and allowances, rent, ~~and~~ utilities, ~~and~~ other operational expenses; and other key staff at Regional, State, or Territorial headquarters as deemed necessary by the Secretary of the Air Force to fulfill Air Force requirements;

~~(9) authorize the payment of aircraft maintenance expenses relating to operational missions including unit capability testing missions and training missions;~~

~~(9 10)~~ authorize the payment of expenses of placing into serviceable condition, improving, and maintaining major items of equipment (including aircraft, motor vehicles, computers and communications equipment) owned or leased by the Civil Air Patrol;

~~(10 11)~~ provide funds to the Civil Air Patrol for costs incurred for the lease or purchase of such major items of equipment as the Secretary considers needed by the Civil Air Patrol; to carry out its Air Force assigned missions; and

~~(11) furnish articles of the Air Force uniform to Civil Air Patrol cadets without cost to such cadets~~ support the Civil Air Patrol cadet program by furnishing articles of the Air Force uniform to cadets without cost and other such support that the Secretary of the Air Force determines is consistent with Air Force missions and objectives;

~~(12) provide support, including the use of appropriated funds, for the Civil Air Patrol aerospace education program to the extent the Secretary of the Air Force determines these activities further Air Force missions and objectives; and~~

~~(13) use Civil Air Patrol chaplains in support of the Air Force active duty and reserve component forces to the extent and under conditions deemed appropriate by the Secretary of the Air Force.~~

(d) FEDERAL FUNDS APPROPRIATED FOR THE CIVIL AIR PATROL. Federal funds appropriated for Civil Air Patrol shall be available for the exclusive use of the Civil Air Patrol.

(e e). CIVIL LIABILITY. The Secretary may use the services of the Civil Air Patrol in fulfilling the noncombat missions of the Department of the Air Force and for purposes of determining the civil liability of the Civil Air Patrol (or any member thereof) with respect to any act or omission committed by the Civil Air Patrol (or any member thereof)

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in carrying out a mission assigned by the Secretary of the Air Force, the Civil Air Patrol shall be deemed to be an instrumentality of the United States.

(f d) USE OF RETIRED AIR FORCE PERSONNEL. (1) The Secretary of the Air Force ~~may authorize the Civil Air Patrol to employ,~~ may retain through the use of personal services contracts, as administrators and liaison officers, persons retired from service in the Air Force whose qualifications are approved under regulations prescribed by the Secretary and who request such employment.

(2) A person ~~employed~~ retained pursuant to paragraph (1) may receive the person's retired pay and an additional amount for such employment that is not more than the difference between the person's retired pay and the pay and allowances the person would be entitled to receive if ordered to active duty in the grade in which the person retired from service in the Air Force. ~~The additional amount shall be paid to the Civil Air Patrol by the Secretary from funds appropriated for that purpose.~~

(3) A person ~~employed~~ retained pursuant to paragraph (1) may not, ~~while so employed,~~ be considered to be on active duty or inactive-duty training for any purpose. Such persons may however accept services on behalf of the Air Force and commit government funds as required to perform their liaison officer functions.

(g) BOARD OF GOVERNORS. (1) The governing body of the Civil Air Patrol shall be a Board of Governors composed of:

(A) four members appointed by the Secretary of the Air Force who may be active or retired officers of the Air Force (including the Air Force Reserve and Air National Guard), Federal civilian employees, or private citizens;

(B) four members of the Civil Air Patrol as determined by the Civil Air Patrol;

(C) three members from federal agencies, public corporations, non-profit associations or other organizations having an interest and expertise in civil aviation and the Civil Air Patrol mission who are appointed jointly by the Secretary of the Air Force and the Civil Air Patrol National Commander, or, if there is a failure of this appointment for more than three months then the members will be chosen by majority vote of the members of the Board of Governors; and

(D) One member appointed by the President of the Senate and one member appointed by the Speaker of the House of Representatives.

(2) The Chairperson of the Board of Governors shall be chosen by the members of the Board of Governors and shall alternate, every two years, between the members of

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the Board appointed by the Secretary of the Air Force and the members of the Board representing the Civil Air Patrol.

(3) The Board of Governors established in this subsection shall exercise the power granted to the Civil Air Patrol in section 40304 of Title 36, including the power to adopt and amend a constitution, bylaws, and rules and regulations. However, neither the Board of Governors nor any other entity of the Civil Air Patrol shall have the power to amend or eliminate any of the requirements for composition, appointment or term of office of the Board of Governors established in this subsection.

(4) (A) The corporation shall eliminate or limit the personal liability of a member of the Board of Governors to the corporation or to its members for monetary damages or breach of fiduciary duty as said member of the Board of Governors; except that any such provision shall not eliminate or limit the liability of said member of the Board of Governors to the corporation or to its members for monetary damages for any breach of the member of the Board of Governors' duty of loyalty to the corporation or to its members, acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or any transaction from which the member of the Board of Governors directly or indirectly derived an improper personal benefit.

(B) No member of the Board of Governors or officer shall be personally liable for any injury to person or property arising out of a tort committed by an employee unless such member of the Board of Governors or officer was personally involved in the situation giving rise to the litigation or unless such member of the Board of Governors or officer committed a criminal offense in connection with such situation. The protection afforded in this clause shall not restrict other common law protections and rights that a member of the Board of Governors or officer may have. This clause shall not restrict the corporation's right to eliminate or limit the personal liability of a member of the Board of Governors to the corporation or to its members for monetary damages for breach of fiduciary duty as a member of the Board of Governors as provided in clause (A) of this paragraph.

Changes to Draft #22

Page 1

- (b) CHANGE "objectives" to "purposes" AND "Organization" to "Corporation"
- (b)(1), line 4
 - following "including reimbursement, to" ADD a colon
 - all after colon to be under subparagraph "A"
 - ADD B. "Fulfill its purposes; and,"

PAGE 2

- NO CHANGES

Page 3

- NO CHANGES

Page 4

- (f)(2) CHANGE "for such employment that is not more than the difference" TO
 - "for such employment that is not less than the difference"

Page 5

- (g)(3)
 - ADD AFTER "Title 36"
 - ". Adoption and amendments to the constitution and bylaws are subject to ratification by the corporate officers of the Civil Air Patrol." Continue with "However, ..."
 - DELETE "or term of office" NOW READS
 - "the requirements for composition or appointment of the Board of Governors, such authority being reserved to the Congress."
 - (g)(4)(B)
 - ADD AFTER "tort committed by an employee"
 - "or volunteer"

CAP Vision

"Civil Air Patrol, America's Air Force Auxiliary, building the nation's finest force of citizen volunteers--performing Missions for America."

CAP Mission Statement

(Approved Feb 99 NB)

- "To serve America by developing our nation's youth; performing local, state, and national emergency and humanitarian missions; and educating our citizens on the impact of aviation and space."

Proposed Long-Term Objectives

- ★ Needed to complete CAP's Strategic Plan
- ★ Should address future critical issues
- ★ Formulate strategies to manage the issues

Recommendation: Approve objectives as presented

Missions

Objective: Nationally integrated Civil Air Patrol Disaster Relief program in each state

- ★ Premier Integrated Air-Ground Team
- ★ Regional/National DR Activities
- ★ Review/Update MOU's

Training

Objective: Civil Air Patrol training video/computer-based.

- ★ Train and Develop Leaders
- ★ Fund Technology
- ★ Embrace Technology

Funding

Objective: Alternative Funding Sources to Support Growth

- ★ Corporate Sponsorships
- ★ Grants
- ★ State/Local Appropriations
- ★ Foundations